



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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Robert P. Stricter
Director of Environmental Affairs
The Aluminum Association
900 19th St., N.W.
Washington, D.C. 20006

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Dear Mr. Stricter:

This letter responds to your August 25, 1999 letter, in which you ask for guidance regarding the reporting requirements of section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). Specifically, you are seeking clarification on the generation of aluminum fume from molten aluminum.

As you are aware, aluminum is one of the metals on the EPCRA section 313 list of toxic chemicals that has the qualifier "fume or dust." Forms of aluminum that do not meet this qualifier are not subject to the EPCRA section 313 reporting requirements. Further, only the fibrous forms of aluminum oxide are reportable under section 313.

In your letter you question Q&A 401, which reads:

401. At a covered facility, vapor is generated from molten aluminum. Upon exposure to the air at the temperatures present in the furnace, the aluminum vapor partially oxidizes and condenses to form aluminum fume. All stack emissions from the furnace are released as non-fibrous aluminum oxide. Should the release from this melting furnace be counted as aluminum fume or should the amount released be reported as zero since it is no longer a reportable toxic chemical?

The facility is manufacturing aluminum fume, a listed EPCRA Section 313 toxic chemical. In the furnace, the fume is then passively converted to non-fibrous aluminum oxide, a non-listed chemical. The facility is not actively destroying the aluminum fume. Therefore, the facility is not treating the toxic chemical for destruction. If the covered facility generates more than 25,000 pounds of aluminum fume during the course of the year, it would meet the manufacturing threshold for this chemical and would be subject to EPCRA Section 313 reporting. Since there are no releases of the reportable chemical, the facility should report zero for release and other waste management activities for aluminum fume.

(1998 EPCRA Section 313 Questions and Answers, December 1998. EPA 745-B-98-004.)

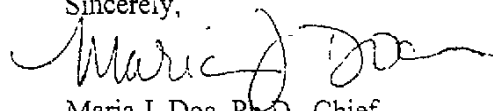
Your letter contends that the literature states that in conventional atmospheres aluminum fume is not generated in furnaces. Instead, the literature states that the molten aluminum surface immediately oxidizes and any fumes generated from the molten metal are in the form of non-fibrous aluminum oxide.

Q&A 401 provides just one scenario in which aluminum fume is generated from molten aluminum. Consider, for example, the carbothermic reduction of alumina to produce aluminum metal (Kirk-Othmer, 4th ed., 2:200). In this particular process aluminum fume can be generated from the carbothermic furnace. However, other processes for producing aluminum may not result in the production of aluminum fume. In those cases Q&A 401 would not be applicable. When the Q&A document is updated, language will be added to Q&A 401 that makes clear that facilities should use process knowledge, as well as site-specific information, to determine if aluminum fume is being generated.

Insofar as complying with the reporting requirements for EPCRA section 313 facilities should use their best readily available information. If a facility believes that its process for producing aluminum does not generate fume, for any period of time¹, but instead, generates non-fibrous aluminum oxide, then the facility should document its assumptions and maintain its records in accordance with the reporting requirements of EPCRA section 313. (See 1998 Q&As 473 - 475, *supra*). In such instances, the facility has not generated a chemical subject to section 313 reporting.

I hope this information helps to clarify the reporting requirements for EPCRA section 313. If you have any other questions, or desire further information, please call either Larry Reisman at 202.260.2301 or me at 202.260.9592.

Sincerely,



Maria J. Doa, Ph.D., Chief
Toxics Release Inventory Branch

cc: Linda R. Hamilton, ALCOA

¹ Q&A 401 makes clear that even if aluminum fume is only generated for a short period of time before being converted into a non-listed chemical, the aluminum fume must still be considered toward the manufacturing threshold for that chemical. "In the furnace, the fume is then passively converted to non-fibrous aluminum oxide, a non-listed chemical." Nevertheless, even though there are no releases of the reportable chemical, if the facility generates more than 25,000 pounds of aluminum fume during the course of the year, the facility must report for aluminum fume.